

IN THE CLAIMS

Claims pending:

- At time of the Action: 1-8, 10-25, 27-39, and 41-47
- After this Response: 1-8, 10-25, 27-39, and 41-47

Currently Amended claims: 1-5, 7, 8, 15, 17, 19, 20, 23, 30, 32, 35-38, 45, and 47

Canceled or Withdrawn claims: None

- 10 This listing of claims replaces all prior versions and listings:

1. (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method of rendering a web page image, the method comprising,

- 15 receiving a document having an element thereon, the document including information associating the element with an external component that is encapsulated and external to the document such that multiple instances of the external component are used with a plurality of different documents including the document having the element thereon and wherein the information associating the
- 20 element with the external component is maintained in a cascading style sheet;

rendering a page image corresponding to at least part of the document, the page image including a representation of the element;

- instantiating the external component to reveal one or more extensible markup language (XML) namespaces specified by the external component, the
- 25 one or more of the XML namespaces being external to the document and specifying one or more behaviors to be applied to the element;

~~associating an interface of the instance of the external component with the element;~~ and

- ~~accessing the instance of the external component using the associated~~
- 30 ~~interface for determining~~ one or more of the XML namespaces to retrieve a new behavior [[of]] to be applied to the representation of the element rendered on the

page image, the new behavior being configured to enhance a default behavior for the element;

~~wherein code for determining a behavior of the representation of the element is not included in the document.~~

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2. (Currently Amended) The computer-readable medium of claim 1 further comprising, receiving an event, and wherein instantiating ~~accessing~~ the external component in response to the event.

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3. (Currently Amended) The computer-readable medium of claim 1 further comprising, modifying an appearance of the representation of the element in response to accessing the one or more of the XML namespaces ~~external component.~~

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4. (Currently Amended) The computer-readable medium of claim 1 further comprising, changing a location of the representation of the element in response to accessing the one or more of the XML namespaces ~~external component.~~

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5. (Currently Amended) The computer-readable medium of claim 1 further comprising, drawing information on the page image in response to accessing the one or more of the XML namespaces ~~external component.~~

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6. (Original) The computer-readable medium of claim 1 wherein the external component comprises an object, and wherein accessing the external component includes instantiating an instance of the object.

7. (Currently Amended) The computer-readable medium of claim 1 further comprising, receiving a new document having another element thereon, the new document including information associating the other element with the external component, rendering a new page image corresponding to at least part of the document, the new page image including a representation of the other element, and accessing the one or more of the XML namespaces ~~external component~~ for determining a behavior of the representation of the other element rendered on the new page image.

8. (Currently Amended) The computer-readable medium of claim 7 wherein the external component comprises a component object model (COM) object, and wherein instantiating ~~accessing~~ the external component for determining a behavior of the representation of the other element includes instantiating ~~accessing~~ another instance of the object.

9. (Canceled)

10. (Original) The computer-readable medium of claim 1 wherein the information associating the element with the external component is maintained in a custom tag.

11. (Original) The computer-readable medium of claim 1 wherein the information associating the element with the external component is maintained in a class.

12. (Original) The computer-readable medium of claim 1 wherein the information associating the element with the external component is maintained in the document inline with the element.

13. (Original) The computer-readable medium of claim 1 wherein the document includes another element having a representation thereof rendered in the page image, the document includes other information associating the other element with the external component, and further comprising, accessing the
5 external component for determining a behavior of the representation of the other element.

14. (Previously Presented) The computer-readable medium of claim 1 wherein the document includes information associating the element with a second
10 external component, and further comprising, accessing the second external component for determining a second behavior of the representation of the element.

15. (Currently Amended) The computer-readable medium of claim 14 further comprising, resolving a conflict between the behavior determined by the
15 one or more XML namespaces ~~external component~~ and the second behavior determined by the second external component based on the order in which the behaviors were applied to the element with each subsequent behavior taking precedence over a previous behavior.

20 16. (Original) The computer-readable medium of claim 1 further comprising, downloading the external component.

17. (Currently Amended) A computer-implemented method of providing dynamic effects to an HTML document, comprising,

encapsulating code in an external component that affects a behavior of one or more elements contained in the document while being external to the document,
5 including elements of different documents, wherein code for determining a behavior of the one more elements contained in the document is not included in the document and is defined by one or more extensible markup language (XML) namespaces associated with the external component;

inserting an element into the document;

10 attaching a reference in the document to associate the element with an instance of the external component, such that another instance of the element is referenced by a different document, and wherein the reference associating the element with the external component is maintained in a cascading style sheet and comprises a reference to the one or more XML namespaces; and

15 providing the document to a renderer, wherein the renderer is capable of instantiating the external component, associating an interface of the instance of the external component with the element, accessing the one or more XML namespaces to retrieve the code for determining the behavior of the one more elements contained in the document, and displaying the rendered document.

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18. (Original) The method of claim 17 further comprising, providing the external component to the renderer.

19. (Currently Amended) The method of claim 17 further comprising,
25 rendering a page image from the document, accessing the one or more XML namespaces ~~external component~~, and modifying a representation of the element based on the code in the one or more XML namespaces ~~external component~~.

20. (Currently Amended) The method of claim 19 wherein the external component is a component object model (COM) object, and wherein accessing the one or more XML namespaces ~~external-component~~ includes calling an interface of the COM object.

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21. (Original) The method of claim 19 wherein modifying a representation of the element includes changing the appearance thereof.

22. (Original) The method of claim 19 wherein modifying a
10 representation of the element includes changing the location thereof.

23. (Currently Amended) The method of claim 17 further comprising, rendering a page image from the document, accessing the one or more XML namespaces ~~external-component~~, and drawing information in the image based on
15 the code in the one or more XML namespaces ~~external-component~~.

24. (Original) The method of claim 23 wherein rendering a page image from the document is interleaved with drawing information in the image.

20 25. (Original) The method of claim 17 further comprising receiving an event indicative of user interaction with the image.

26. (Canceled)

25 27. (Previously Presented) The method of claim 17 wherein the reference associating the element with the external component is maintained in a custom tag.

28. (Previously Presented) The method of claim 17 wherein the information associating the element with the external component is maintained in a class identifier.

5 29. (Previously Presented) The method of claim 17 wherein the reference associating the element with the external component is maintained inline with the element in the document.

10 30. (Currently Amended) A computer system for rendering page images on a display, comprising:

an external component encapsulating code for modifying a behavior of one or more elements, the external component operable to be instantiated multiple times and operable to modify elements in a plurality of different documents while being external to the documents and wherein the information associating the element with the external component is maintained in a cascading style sheet, wherein code for determining a behavior of the one or more elements is [[not]] included in one or more extensible markup language (XML) namespaces that are defined externally to the documents and that are associated with the external component; and

20 at least one processing unit comprising a renderer connected to the display for rendering page images, the renderer being configured to receive ~~receiving~~ a document having an element specified therein and information associating the element with the external component, the renderer being configured to render~~[[ing]]~~ a page image corresponding to the document, the renderer further being configured to: instantiate ~~instantiating~~ the external component, ~~the renderer associating~~ associate an interface of the instantiated external component with the element, ~~the renderer display~~~~[[ing]]~~ the document, and access~~[[ing]]~~ the one or more XML namespaces to retrieve the code for determining the behavior of the one or more elements ~~external component~~ for modifying the page image.

31. (Original) The system of claim 30 further comprising a mechanism for receiving an event.

32. (Currently Amended) The system of claim 30 wherein the renderer
5 is configured to display[[s]] a representation of the element and modify ~~modifies~~ a behavior of the element by accessing the one or more XML namespaces ~~external component~~.

33. (Original) The system of claim 32 wherein the behavior is modified
10 by changing a displayed property of the representation of the element.

34. (Original) The system of claim 32 wherein the behavior is modified by changing a displayed location of the representation of the element.

15 35. (Currently Amended) The system of claim 30 wherein the renderer is configured to modify ~~modifies~~ the page image by accessing the one or more XML namespaces ~~external component~~, and the external component is configured to draw[[s]] information on the page image based at least in part on the code include in the one or more XML namespaces.

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36. (Currently Amended) The system of claim 35 wherein the renderer is configured to call[[s]] the external component a plurality of times to draw information on the page image, and the renderer is configured to draw[[s]] information on the page image between at least some of calls to the external
25 component.

37. (Currently Amended) The system of claim 30 wherein the external component comprises an object, and wherein the renderer is configured to instantiate ~~instantiates~~ an instance of the object.

38. (Currently Amended) The system of claim 30 wherein the external component comprises an object, and wherein the renderer is configured to communicate[[s]] with the object through an interface.

5 39. (Currently Amended) The system of claim 30 wherein the renderer is configured to receive[[s]] a new document having another element thereon that references the external component.

40. (canceled)

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41. (Previously Presented) The system of claim 30 wherein the cascading style sheet is embedded in the document.

15 42. (Previously Presented) The system of claim 30 wherein the cascading style sheet is linked to the document.

43. (Original) The system of claim 30 including a custom tag for associating the element with the external component.

20 44. (Original) The system of claim 30 wherein the information associating the element with the external component is maintained in the document inline with the element.

25 45. (Currently Amended) The system of claim 30 wherein the document includes another element and information associating the other element with the external component, and wherein the renderer is configured to access[[es]] the one or more XML namespaces ~~external component~~ for determining a behavior of the representation of the other element.

46. (Original) The system of claim 30 wherein the document includes information associating the element with a second external component.

47. (Currently Amended) The system of claim 30 wherein the renderer
5 is configured to access[[es]] the external component to control the format of data input by a user.